

IN THE CLAIMS:

Please amend Claims 1 to 3, 5 to 7, 9 to 15, 17 to 19, 21, 22 and 24 to 26.

Please cancel Claims 4, 8, 16 and 20 without prejudice or disclaimer of subject matter. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) A method of creating a split tree from an input tree for ~~representing an input tree and at least one tree fragment obtained by splitting the input tree~~, wherein the input tree comprises a plurality of nodes, said method comprising the steps of:

(a) determining which of the plurality of nodes fit into ~~each a~~ galley target; and

wherein said determining step comprises the sub-steps of:

(a1) setting one of the plurality of nodes as a current node for said galley target;

(a2) comparing the size of the current node with available space in the galley target;

(a3) if the size of the current node is not greater than the available space, deciding that the current node fits into the galley target;

(a4) if the size of the current node is greater than the available space, performing the further sub-steps of:

(a4i) determining whether the current node has at least one child node;

(a4ii) setting one of the child nodes as the new current node if the current node has at least one child node; and

(a4iii) recursively executing steps (a2) to (a4) with respect to the new current node; and

(b) marking the nodes that fit into ~~each~~ said galley target with a mark specific to the galley target so as to create the split tree in which each tree fragment is identified by a respective mark, and wherein said split tree represent the input tree and at least one tree fragment obtained by splitting the input tree.

2. (Currently Amended) The method according to claim 1, wherein said determining step ~~comprising~~ comprises the further initial steps of:

~~setting one of the plurality of nodes as a current node for galley target;~~
~~checking whether the current node has already been marked; and~~
~~comparing the size of the current node with available space in the galley target~~
performing setps (a1) to (a4) if the current node has not been marked; and
deciding that the current node fits into the galley target if the size of the current node is not greater than the available space.

3. (Currently Amended) The method according to claim ~~[[2]]~~ 1, further comprising the further step of updating the available space by decreasing the size of the current node if it is determined that the current node fits into the galley target.

4. (Cancelled)

5. (Currently Amended) The method according to claim [[4]] 1, wherein in ~~said step (a4ii) of setting the new current node~~, a first node and a second node are set as the new current node, sequentially, when the current node has two children nodes.

6. (Currently Amended) The method according to claim [[4]] 1, wherein in ~~said marking~~ step (b), the current node is marked with a special mark if the size of the current node is greater than the available space and ~~that~~ the current node has no children nodes.

7. (Currently Amended) A method of ~~splitting a split tree into~~ forming at least one tree fragment from a split tree, wherein nodes of said split tree are marked with marks, ~~each of the tree fragment is associated with a mark specific to the tree fragment and the split tree comprises at least one node with the mark~~; said method comprising the steps of:

identifying the ~~at least one node~~ nodes of said split tree marked with the respective marks ~~mark~~, each respective mark being associated with a respective tree fragment; and

creating ~~each~~ respective tree fragment fragments from the nodes marked with the respective marks ~~mark specific to the tree fragment~~.

8. (Cancelled)

9. (Currently Amended) The method according to claim [[8]] Z,
wherein said ~~searching~~ identifying step ~~comprising~~ comprises the ~~steps~~ sub-steps of:

setting one of the ~~at least one node~~ nodes as a start node;

checking whether the start node is marked with the mark ~~specific to~~
associated with the tree fragment; and

completing the ~~search~~ identifying step if the start node is marked with the
mark ~~specific to~~ associated with the tree fragment.

10. (Currently Amended) The method according to claim 9, further
comprising the steps of:

checking whether the start node has already been marked if the start node is
not marked with the mark ~~specific to~~ associated with the tree fragment;

determining whether the start node has at least one child node if the start
node has not been marked;

setting one of the child nodes ~~node in place of~~ as the start node if the start
node has at least one child node; and

recursively executing said ~~searching~~ identifying step ~~with respect to the set~~
~~child node~~.

11. (Currently Amended) The method according to claim 10, wherein in said step of setting one of the child ~~node~~ nodes, a first node and a second node are set sequentially, when the start node has two children nodes.

12. (Currently Amended) The method according to claim 7, wherein said creating step ~~comprising~~ comprises the step of performing a predetermined function on the nodes marked with the mark ~~specific to~~ associated with the tree fragment.

13. (Currently Amended) Apparatus for creating a split tree from an input tree ~~for representing an input tree and at least one fragment obtained by splitting the input tree~~, wherein the input tree comprises a plurality of nodes, said apparatus comprising:

determining means for determining which of the plurality of nodes fit into each a galley target by performing the steps of:

(a1) setting one of the plurality of nodes as a current node for said galley target;

(a2) comparing the size of the current node with available space in the galley target;

(a3) if the size of the current node is not greater than the available space, deciding that the current node fits into the galley target;

(a4) if the size of the current node is greater than the available space, performing the further sub-steps of:

(a4i) determining whether the current node has at least one child node;

(a4ii) setting one of the child nodes as the new current node if the current node has at least one child node; and

(a4iii) recursively executing the steps (a2) to (a4) with respect to the new current node; and

marking means for marking the nodes that fit into ~~each~~ said galley target with a mark specific to the galley target so as to create the split tree in which each tree fragment is identified by a respective mark, and wherein said split tree represents the input tree and at least one tree fragment obtained by splitting the input tree.

14. (Currently Amended) The apparatus according to claim 13, wherein said determining means ~~comprising~~ further comprises:

~~setting means for setting one of the plurality of nodes as a current node for a galley target;~~

checking means for checking whether the current node has already been marked; and

~~comparing means for comparing the size of the current node with available space in the galley target~~

initiating means for initiating said determining means if the current node has not been marked; ~~and~~

~~deciding means for deciding that the current node fits into the galley target if the size of the current node is not greater than the available space.~~

15. (Currently Amended) The apparatus according to claim ~~14~~ 13, further comprising updating means for updating the available space by decreasing the size of the current node if it is determined that the current node fits into the galley target.

16. (Cancelled).

17. (Currently Amended) The apparatus according to claim ~~16~~ 13, wherein ~~said second setting means sets~~ in step (a4ii) a first node and a second node are set as the new current node~~[[,]]~~ sequentially, when the current node has two children nodes.

18. (Currently Amended) The apparatus according to claim ~~16~~ 13, wherein said marking means marks the current node with a special mark if the size of the current node is greater than the available space and ~~that~~ the current node has no children nodes.

19. (Currently Amended) Apparatus for ~~splitting a split tree into~~ forming at least one tree fragment from a split tree, wherein nodes of said split tree are marked with marks ~~each of the tree fragment is associated with a mark specific to the tree~~

fragment and the split tree comprises at least one node marked with the mark, said apparatus comprising:

identification means for identifying the ~~at least one node~~ nodes of said split tree marked with the respective mark marks, each respective mark being associated with a respective tree fragment; and

creating means for creating ~~each~~ respective tree fragments from the nodes marked with the respective marks ~~mark specific to the tree fragment~~.

20. (Cancelled).

21. (Currently Amended) The apparatus according to claim 20 19, wherein said ~~search~~ identifying means ~~comprising~~ comprises:

setting means for setting one of the ~~at least one node~~ nodes as a start node;

checking means for checking whether the start node is marked with the mark ~~specific to~~ associated with the tree fragment; and

completing means for completing the ~~search~~ identification if the start node is marked with the mark ~~specific to~~ associated with the tree fragment.

22. (Currently Amended) The apparatus according to claim 21, further comprising:

mark checking means for checking whether the start node has already marked if the start node is not marked with the mark ~~specific to~~ associated with the tree fragment;

child node determining means for determining whether the start node has at least one child node if the start node has not been marked;

second setting means for setting one of the child nodes ~~node in place of as~~ the start node if the start node has at least one child node; and

controlling means for recursively initiating said identification ~~executing search by said search means with respect to the set child node.~~

23. (Original) The apparatus according to claim 22, wherein said second setting means sets a first node and a second node sequentially, when the start node has two children nodes.

24. (Currently Amended) The apparatus according to claim 19, wherein said creating means ~~comprising~~ comprises function means for performing a predetermined function on the nodes marked with the mark ~~specific to~~ associated with the tree fragment.

25. (Currently Amended) A computer program product including a computer readable medium incorporating a computer program for creating a split tree ~~for representing an input tree and at least one tree fragment obtained by splitting the~~ from an

input tree, wherein the input tree comprises a plurality of nodes, said computer program product comprising:

means for determining which of the plurality of nodes fit into ~~each~~ a galley target by performing the steps of:

(a1) setting one of the plurality of nodes as a current node for said galley target:

(a2) comparing the size of the current node with available space in the galley target:

(a3) if the size of the current node is not greater than the available space, deciding that the current node fits into the galley target:

(a4) if the size of the current node is greater than the available space, performing the further sub-steps of:

(a4i) determining whether the current node has at least one child node;

(a4ii) setting one of the child nodes as the new current node if the current node has at least one child node; and

(a4iii) recursively executing steps (a2) to (a4) with respect to the new current node; and

means for marking the nodes that fit into ~~each~~ said galley target with a mark specific to the galley target so as to create the split tree in which each tree fragment is identified by a respective mark, and wherein said split tree represents the input tree and at least one tree fragment obtained by splitting the input tree.

26. (Currently Amended) A computer program product including readable medium incorporating a computer program for ~~splitting a split tree into~~ forming at least one tree fragment from a split tree, wherein nodes of said split tree are marked with marks ~~each of the tree fragment is associated with a mark specific to the tree fragment and the split tree comprises at least one node marked with the mark~~, said computer program product comprising:

means for identifying the ~~at least one node~~ nodes of said split tree marked with ~~the~~ respective mark marks, each respective mark being associated with a respective tree fragment; and

means for creating ~~each~~ respective tree fragment fragments from the nodes marked with the respective marks ~~mark specific to the tree fragment~~.
